Table A5.1.—Equations for current expenditures per pupil in fall enrollment, estimated average annual salaries of teachers, and education revenue receipts from state sources

Dependent Variable	Equation			R^2	Durbin-Watson statistic[1]	Estimation technique[2]	Rho	Time period
Current expenditures per pupil	ln(CUREXP) =	- 3.39 (-4.11)	+ 0.669ln(PCI) (3.29)	+ 0.340ln(SGRANT) (2.41)	0.993	1.70	AR1	0.69 (4.76)	1967-68 to 1998-99
		- 0.330ln(ENRPOP) (-1.82)							
Estimated average annual salaries	ln(SALRY) =	11.4 (12.0)	+ 0.41ln(CUREXP) (5.12)	+ 0.54ln(ENRPOP) (3.41)	0.949	1.44	AR1	0.85 (7.88)	1969-70 to 1998-99
		+ 1.72ln(ENR1/ENR2) (3.39)							
Education revenue receipts from state sources per capita	ln(SGRNT) =	5.1 (4.62)	+ 0.61ln(PERTAX1) (12.9)	+ 0.35ln(ENRPOP) (2.27)	0.978	1.89	AR1	0.53 (2.93)	1967-68 to 1998-99
		- 0.032ln(RCPIANN/RCPIANN1) (-2.18)							

[1]For an explanation of the Durbin-Watson statistic, see J. Johnston, *Econometric Methods*, New York: McGraw-Hill, 1972, pages 251-252.

[2]AR1 indicates an estimation procedure for correcting the problem of first-order autocorrelation. For a general discussion of the problem of autocorrelation, and the method used to forecast in the presence of autocorrelation, see G. Judge, W. Hill, R. Griffiths, H. Lutkepohl, and T. Lee, *The Theory and Practice of Econometrics,* New York: John Wiley and Sons, 1985, pages 315- 318.

Where:

CUREXP	= Current expenditures of public elementary and secondary schools per pupil in fall enrollment in constant 1982-84 dollars
SALRY	= Average annual salary of teachers in public elementary and secondary schools in constant 1982-84 dollars
SGRNT	= Local governments' education revenue receipts from state sources, per capita, in constant 1982-84 dollars
PCI	= Disposable income per capita in constant 1996 dollars
ENRPOP	= Ratio of fall enrollment to the population
PERTAX1	= Personal taxes and nontax receipts to state and local governments, per capita, in constant 1982-84 dollars lagged one period
RCPIANN	= Inflation rate measured by the Consumer Price Index
RCPIANN1	= Inflation rate measured by the Consumer Price Index lagged 1 period
ENR1	= Fall enrollment lagged 1 period
ENR2	= Fall enrollment lagged 2 periods

NOTE: R^2 indicates the coefficient of determination. Numbers in parentheses are t-statistics.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Elementary and Secondary School

Current Expenditures Model; Elementary and Secondary Teacher Salary Model; and Revenue Receipts from State Sources Model.

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